

NON-PUBLIC?: N
ACCESSION #: 8809230295
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Turkey Point Unit 4 PAGE: 1 OF 3

DOCKET NUMBER: 05000251

TITLE: Reactor Trip Due to Personnel Error During Steam Generator Protection
Channel Testing
EVENT DATE: 08/19/88 LER #: 88-010-00 REPORT DATE: 09/19/88

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Gabe Salamon, Compliance Engineer TELEPHONE: 305-246-6560

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE TO NPRDS:

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT: At 2121 on August 19, 1988, with Unit 4 at 100% power, a reactor trip occurred due to Lo-Lo steam generator (SG) level on the B SG. At 1650, the Instrumentation and Controls group commenced procedure OP 14004.1, "Steam Generator Protection Channel - Periodic Test." While performing the SG pressure portion of the periodic on the B SG, the B feedwater regulating valve drove shut resulting in reduced flow and ultimately in a reactor trip. The cause of the trip was cognitive personnel error in that contrary to the procedure, the incorrect channel of steam flow input to the B feedwater regulating valve was selected. Contributing causes were an inadequate independent verification of switch position and a lack of identification of the channel number on the switch placard. After troubleshooting of the entire control circuit, feedwater regulating valve, and actuator to assure that no failures had contributed to the transient, and following completion of the post trip review, the unit was returned to service on August 22, 1988. Similar load threatening periodic tests where incorrect channel selection could place the unit in a transient will have the channel selections independently verified by a qualified operator. The identification placards will be changed to reflect protection channel numbers.

End of Abstract

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EVENT

On August 19, 1988, at 2121, with Unit 4 operating at 100% power, during the performance of procedure 0P-14004.1, "Steam Generator Protection Channels - Periodic Test," Unit 4 tripped due to Lo-Lo level in the B Steam Generator (SG) (EHS:AB). While performing the SG pressure portion of the test on the B SG, the B feedwater regulator valve drove shut resulting in reduced feedflow and ultimately in a Lo-Lo SG level trip. All systems functioned as designed with the exception of SV-4-6275 C-1, the C SG blowdown bypass valve, which failed to open by use of its control switch. Auxiliary feedwater (EHS:BA) auto-initiated on the Lo-Lo level signal. The plant was stabilized in Mode 3 (hot standby) and an Event Response Team (ERT) was formed to review the transient.

CAUSE OF EVENT

The ERT investigation into the event determined that the primary cause of the event was cognitive personnel error in that the reactor control operator selected the incorrect channel of steam flow input to the B feedwater regulating valve. Contributing causes were an inadequate independent verification of the proper switch position and a lack of identification of the channel number on the switch placard.

ANALYSIS OF EVENT

A post trip review was performed to assess the proper operation of the safety related equipment. The post trip review established that the transient behavior of pertinent plant parameters for the reactor coolant system (RCS) and steam generators responded as expected for a transient of this kind. Specifically, the RCS pressures and temperatures were determined to have followed an expected pattern based on the conditions leading up to the transient. Other than the automatic initiation of Auxiliary feedwater, there were no manual or automatic reactor protection system or engineered safety features actuations. Based on the above, the health and safety of the public were not affected.

CORRECTIVE ACTIONS

1) An ERT was formed to review the event and determine the root cause and corrective actions.

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2) The reactor control operator was counselled regarding procedural compliance and attention to detail.

3) Similar load threatening periodic tests where incorrect channel selection, could place the unit in a transient will have the channel selections independently verified by a qualified operator. The affected procedures will be revised by January 3, 1989.

4) The identification placards will be changed to reflect protection channel numbers. This will be completed by November 1, 1988.

ADDITIONAL INFORMATION

Similar occurrences: Other reactor trips on Lo-Lo SG level have occurred, though not for the same root cause as this event.

ATTACHMENT 1 TO 8809230295 PAGE 1 OF 1

SEPTEMBER 19, 1988

L-88-418

10CFR50.73

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Re: Turkey Point Unit 4
Docket No. 50-251
,Reportable Event: 88-10
Date of Event: August 19, 1988
Reactor Trip Due to Personnel Error
During Steam Generator Protection Channel Testing

The attached Licensee Event Report (LER) is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Very truly yours,

W. F. Conway
Senior Vice President - Nuclear

WFC/SDF/gp

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator,
Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant

ACCESSION #: 8809260068
